



# Comfort

## Pain Mechanisms

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### Pre-Assessment

#### Questions:

1. Which of the following are accurate statements about ways to reduce pain?
  - a. Eliminate chemicals from the site of peripheral tissue injury.
  - b. Activate the descending pain inhibitory mechanisms.
  - c. Use massage to stimulate the small sensory afferent fibers and thereby inhibit the large afferent fibers transmitting messages about nociception.
  - d. All of the above statements are accurate.
  - e. a and b are accurate statements.
  
2. Malignant tumor growth can occur in somatic, visceral, neural tissue or all three types of tissue. Which of the following are accurate statements about the type of tissue involved by a tumor?
  - a. Somatic tissue involvement results in referred pain syndromes that can be identified by using a body outline to locate the pain.
  - b. Neural tissue involvement produces a type of pain that is not responsive to even large doses of opioid drugs.
  - c. Visceral tissue involvement results in pain being reported in well-localized areas.
  - d. NSAIDs often are effective in management of somatic tissue involvement, such as bone metastases.

3. It is well known that many chemicals (peripheral soup ingredients) can cause pain fibers to be activated or sensitized. Blocking synthesis or release of those chemicals can improve pain relief. Which of the following are accurate statements about blocking peripheral soup ingredients?
  - a. Zostrix (capsaicin) helps to eliminate substance P.
  - b. Pharmacological or psychological calming strategies may help to eliminate norepinephrine release from the sympathetic nervous system.
  - c. Steroids and NSAIDs inhibit synthesis of prostaglandins, which are potent sensitizers of the primary afferent nociceptor.
  - d. All of the above statements are accurate.
  - e. None of the above statements are accurate.
  
4. Descending pain modulation mechanisms are important to pain relief. Which of the following are accurate statements about descending pain inhibition?
  - a. Tricyclic antidepressants can improve depression in the person with cancer pain but probably have little effect on the transmission of nociceptive stimuli.
  - b. Placebos are believed to activate the descending pain inhibitory system through the endogenous opioid systems.
  - c. Intrathecally administered morphine provides pain relief by binding to opioid receptors in the spinal cord, in much the same way as endogenous opioids relieve pain.
  - d. a and b are accurate statements.
  - e. b and c are accurate statements.
  
5. Optimal pain control in persons with cancer often requires multiple modalities that provide analgesia via different mechanisms. Which of the following combinations of therapies provide analgesia via different mechanisms?
  - a. Massage and TENS
  - b. Massage, NSAID, tricyclic antidepressant, opioid, hypnosis
  - c. Systemic and spinal opioids
  - d. Two different opioids

**Answers:**

1. Which of the following are accurate statements about ways to reduce pain?

**Answer:** d. All of the above statements are accurate.

2. Malignant tumor growth can occur in somatic, visceral, neural tissue or all three types of tissue. Which of the following are accurate statements about the type of tissue involved by a tumor?

**Answer:** d. NSAIDs often are effective in management of somatic tissue involvement, such as bone metastases.

3. It is well known that many chemicals (peripheral soup ingredients) can cause pain fibers to be activated or sensitized. Blocking synthesis or release of those chemicals can improve pain relief. Which of the following are accurate statements about blocking peripheral soup ingredients?

**Answer:** d. All of the above statements are accurate.

4. Descending pain modulation mechanisms are important to pain relief. Which of the following are accurate statements about descending pain inhibition?

**Answer:** e. b and c are accurate statements

5. Optimal pain control in persons with cancer often requires multiple modalities that provide analgesia via different mechanisms. Which of the following combinations of therapies provide analgesia via different mechanisms?

**Answer:** b. Massage, NSAID, tricyclic antidepressant, opioid, hypnosis